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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _30 November 2007_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-27_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-27_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.　　This office action is in response to applicant's communication of November 30, 2007. Original claims 1-27 are pending and have been examined. The rejections are stated below.

Status of Claims

2.　　No claims have been cancelled or added. Thus, claims 1-12 remain pending and are presented for examination.

Response to Arguments

3.　　Applicant's arguments filed 30 November 2007, with respect to the rejection(s) of claim(s) 1-27 rejected under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Randell et al. [US 2004/0064375 A1] in view of Rahn et al. [2004/0054685].

Claim Rejections - 35 USC § 103

3.　　The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   **Claims 1-3, 5, 12-14, 16-18, 20** and **27** are rejected under 35 U.S.C. 103(a) as

being unpatentable over **Randell et al. [US Pub No. 2004/0064375 A1]** here in after

referred to as Randell in view of **Rahn et al. [US Pub No. 2004/0054685 A1]** here in

after referred to as Rahn.

5.   Regarding **claim 1**, Randell discloses a computer implemented method for

matching a remittance to a transaction [0015-0019].

Randell does not explicitly disclose accessing remittance lines, transaction

information. However Rahn discloses obtaining third party payor data associated with

the set of prescription transactions; obtaining remittance advice associated with the set

of prescription transactions, the remittance advice comprising a plurality of remittance

advice line items, each remittance advice line item associated with one of the

prescription transactions of the set of prescription transactions; configuring the

prescription claim data, the third party deposit data, the third party payor data, and the

remittance advice into a pharmacy automated accounts receivable system (PARS)

database to form PARS data. [Page 37 claim 1]   At the time of the invention it would

have been obvious to one of ordinary skill in the art to modify the disclosure of Randell

to include the teachings of Rahn to obtain invention as specified in claim 1. The

rationale to combine the teachings would be for automatically reconciling third party

payor receivables.

Randell discloses matching rules that assign a weight to a parameter considered in said matching. Randell discloses computing a weighted matching score corresponding to said parameter based upon said weight wherein said matching score corresponds to a probability of an accurate match between said remittance and said transaction. Randell discloses generating a match recommendation based on said weighted matching score. [0015-0019]

6.   Regarding **claim 2**, the limitation of claim 1 is covered above. Randell discloses determining that said weighted matching score is below a minimum scoring threshold; and comparing said remittance against a plurality of electronic invoices. [0015-0019]

7.   As per **claim 3**, the limitation of claim 2 is covered above. Randell teaches wherein said comparing comprises associating a sum of said plurality of electronic invoices closely to an amount corresponding to said remittance. [Rahn 0015-0019]

8.   As per **claim 5**, the limitation of claim 1 is covered above. Randell does not explicitly teach wherein said remittance lines comprise a lockbox file. However Rahn discloses system user may select to search for deposits based on a number of variables such as the deposit date, the lockbox number, the remitter identification name, etc. [Rahn 0092]

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the disclosure of Randell to include the teachings of Rahn to obtain

invention as specified in claim 5. The rationale to combine the teachings would be for automatically reconciling third party payor receivables.

9.   In regards to **claim 12**, the limitation of claim 1 is covered above. Randell does not explicitly disclose sending said match recommendation to a receipt application program interface; assigning an informative header to a remittance for use by a receipt application; where said match recommendation comprises an unmatched remittance, sending said match recommendation to an unmatched remittance notification initiator; and initiating a workflow notification corresponding to said unmatched remittance. However Rahn discloses when a deposit is found to match an RA batch or sub-batch based on an identifying criteria, for example, a deposit ID or a money amount, the RA line items in the RA batch or sub-batch may be considered to be matched to the deposit, and therefore fully paid and the RA batch or sub-batch is advanced to an automatic RA-to-Claim matching process. Rahn discloses each RA data type including RA Batches, RA sub-batches, and RA line item has a unique list of possible states. For example, an RA sub-batch may have a "Matched-to-Deposit" state, an "Unequal-Dollar-Match" state, an "Ambiguous" state, or an "Unmatched" state. If it is determined that the sub-batches associated with the selected batch are in the unmatched state, it is determined whether the RA money totals associated with the batches (viz., an RA batch money total record) have an assigned state designating that the RA batch is unmatched (viz., an unmatched state) to be considered for the automatic deposit-to-RA matching

process, at a decision block 310. Rahn discloses upon determining that the RA sub-batches associated with the selected unmatched RA batches (i) have deposit ID identifiers associated with their RA sub-batches, (ii) are in an unmatched state, and (iii) that the RA batch money total records are in an unmatched state, the RA sub-batch may be selected at a block 312. Each RA sub-batch may include a processor ID corresponding to the processor responsible for providing information to the remitter and the remittance advice provider. [Rahn 0152-0156]

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the disclosure of Randell to include the teachings of Rahn to obtain invention as specified in claim 12. The rationale to combine the teachings would be for automatically reconciling third party payor receivables.

10.   Regarding **claim 13**, it recites similar language as to claim 1 and is rejected on the same grounds.

11.   Regarding **claim 14**, the limitation of claim 13 is covered above. Randell does not explicitly disclose a receipt application program interface operating with said post match handler for providing said match recommendation to a receipt application; and a notification initiator operating with said post match handler for initiating a notification wherein said notification comprises a report that a match failed between said remittance and said transaction.

However Rahn discloses the data compare manager automatically compare deposit may automatically compare deposit information data extracted from EDI files to RA data extracted from RAs in an attempt to match the third party payor deposits to a particular RA batch or sub-batch. The process of automatic matching of deposits to RAs, herein referred to as an automatic Deposit-to-RA matching process, may continue until a number of possible combinations of deposit to RA batches/sub-batches matches have been attempted using a variety of identifying criteria. When a deposit is found to match an RA batch or sub-batch based on an identifying criteria, for example, a deposit ID or a money amount, the RA line items in the RA batch or sub-batch may be considered to be matched to the deposit, and therefore fully paid and the RA batch or sub-batch is advanced to an automatic RA-to-Claim matching process. Rahn discloses an ambiguous state may indicate that the data compare manager was unable to match the remittance advice sub-batch to a deposit. [Rahn 0152-0154]

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the disclosure of Randell to include the teachings of Rahn to obtain invention as specified in claim 14. The rationale to combine the teachings would be for automatically reconciling third party payor receivables.

12.   As per **claim 16,** the limitation of this claim recites similar language as claim 1 and is rejected on the same grounds.

13.   As per **claim 17**, the limitation of claim 16 is covered above. Claim 17 recites

similar language as to claim 2 and is rejected on the same grounds.

14.   As per **claim 18**, the limitation of claim 17 is covered above. Claim 17 recites

similar language as to claim 3 and is rejected on the same grounds.

15.   As per **claim 20**, the limitation of claim 16 is covered above. Claim 20 recites

similar language as to claim 5 and is rejected on the same grounds.

16.   As per **claim 27**, the limitation of claim 16 is covered above. Randell discloses a

computer usable medium wherein said method further comprises handling said

recommendations. [Page 11 claim 22]

Claim Rejections - 35 USC § 103

17.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

18.   **Claims 4** and **19** rejected under 35 U.S.C. 103(a) as being unpatentable over

Randell et al. [US Pub No. 2004/0064375 A1] in view of **Rahn et al. [US Pub No.**

2004/0054685 A1] and further in view of **[Koller et al. US Pub No. 2002/0103793 A1.]**

19.   Regarding **claim 4**, the limitation of claim 3 is covered above. Randell does not

disclose wherein said associating is performed by a process comprising a Knapsack

heuristic. However Koller et al. teaches the first approach is based on an analogy

between this problem and the weighted knapsack heuristic: We have a set of items,

each with a value and a volume, and a knapsack with a fixed volume. Our goal is to

select the largest value set of items that fits in the knapsack. Our goal here is very

similar: every edge that we introduce into the model has some value in terms of score

and some cost in terms of space. A standard heuristic for the knapsack heuristic is to

greedily add the item into the knapsack that has, not the maximum value, but the largest

value to volume ratio. [0353]

At the time of the invention it would have been obvious to one having ordinary

skill in the art to modify the disclosure of Randell. to include the teachings of Koller et al.

to obtain invention as specified in claim 4. The motivation to combine the teachings is

choosing possible essentials that can fit into a weight.

20.   As per **claim 19**, it recites similar language as to claim 4 and is rejected on the

same grounds.

21.   **Claims 6, 9, 15, 21 and 24** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Randell et al. [US Pub No. 2004/0064375 A1]** in view of **Rahn et al.**

[US Pub No. 2004/0054685 A1] and further in view of **Anglum [US Pub No.**

2003/0065595 A1], **Templeton et al. [US Patent No. 5,679,940]** and **Harper [US Pub**

No. 2003/0212654 A1.]

22.   Regarding **claim 6**, the limitation of claim 1 is covered above. Randell does not

disclose calculating a weighted customer score. However Anglum teaches

In addition, the present invention might look at the confidence quality of each name in

the list of potential matches. For instance, the name on the credit card might be

"Richard M. Nixon." Two individuals with similar names might reside within the trade

zone of the store in which the purchase is made, specifically an individual known only

as "Dick Nixon" and another individual who goes by the full name "Richard M. Nixon." In

this circumstance, the confidence of the second name on the list would be higher than

the first. As a result, the second name would score higher on the match quality test [see

page 4, paragraph 0041]. At the time of the invention it would have been obvious to one

having ordinary skill in the art to modify the disclosure of Randell to include the

teachings of Anglum to obtain invention as specified in claim 6. The motivation would

be to understand the desires and trends of its customers.

Randell does not disclose calculating a weighted transaction score. However

Templeton et al. teaches the host computer calculates a transaction score by

accumulating the scoring totals associated with each date element [see column 28,

lines 22-24]. At the time of the invention it would have been obvious to one having

ordinary skill in the art to modify the disclosure of Randell to include the teachings of

Templeton et al. to obtain invention as specified in claim 6. The motivation to combine

the teachings would be to for risk assessment in a transaction.

Randell does not disclose determining a total weighted matching score based on

said weighted customer score and said weighted transaction score. However Harper et

al. discloses deterministic data correlation determines whether an exact match has

occurred and heuristic data correlation generates a set of records that possibly match

(candidate records) from the Customer Index Database 14, and then determines a

match score for the candidate records. In heuristic correlation, the match scores for the

candidate records are compared within the process flow to determine the best match of

the candidate set [see page 5, paragraph 0071. At the time of the invention it would

have been obvious to one of ordinary skill in the art to modify the disclosure of Randell

to include the teachings of Harper et al. to obtain invention as specified in claim 6. The

motivation to combine the teachings would be to collect and store customer information.

23.   In regards to **claim 9**, the limitation of claim 6 is covered above. Randell does

not disclose calculating a weighted transaction number score; calculating a weighted

transaction amount score; and determining said weighted transaction score based on

said weighted transaction number score and said weighted transaction amount score.

However Templeton et al. teaches the host computer calculates a transaction score by

accumulating the scoring totals associated with each date element. The authorization

host computer then determines whether the transaction score is equal to or greater than

a predetermined level that is determined by the merchant's scoring model. [Column 28

lines 22-27]. At the time of the invention it would have been obvious to one having

ordinary skill in the art to modify the disclosure of Randell to include the teachings of

Templeton et al. to obtain invention as specified in claim 6. The motivation to combine

the teachings would be to for risk assessment in a transaction.

24.   As per **claim 15**, the limitation of claim 13 is covered above. Claim 15 recites

similar language as to claim 6 and is rejected on the same grounds.

25.   As per **claim 21**, the limitation of claim 16 is covered above. Claim 21 recites

similar language as to claim 6 and is rejected on the same grounds.

26.   As per **claim 24**, the limitation of claim 21 is covered above. Claim 24 recites

similar language as to claim 9 and is rejected on the same grounds.

27.   **Claims 7** and **8** rejected under 35 U.S.C. 103(a) as being unpatentable over

Randell et al. [US Pub No. 2004/0064375 A1] in view of **Rahn et al. [US Pub No.**

2004/0054685 A1] and further in view of **Kilpatrick et al. [US Patent No. 6,742,124**

B1].

28.   Regarding **claim 7**, the limitation of claim 1 is covered above; Randell does not explicitly disclose determining a total match score comprises scoring strings and numbers. However Kilpatrick et al. teaches considering an example comparison of the strings "zabc" and "abcd." In this example, the hamming distance calculation would yield a value of four because the two strings differ at each of the four character positions [see column 9, lines 31-35]

        At the time of the invention it would have been obvious to one having ordinary skill in the art to modify the disclosure of Randell to include the teachings of Kilpatrick to obtain invention as specified in claim 7. The motivation to combine the teachings is Levenshtein distances provide a smoother, more graduated distance metric. [Column 9 line 30-31]

29.   Regarding **claim 8,** the limitation of claim 7 is covered above. Randell does not disclose wherein said scoring strings and numbers is performed by a process comprising a Levenshtein and Longest common substring fuzzy scoring heuristic. However Kilpatrick et al. teaches the levenshtein distance calculation counts the differences between two strings, where differences are counted not only when strings have different characters, but also when one string has a character whereas the other string does not. In this manner, the levenshtein distance is defined for strings of arbitrary length [see column 9, lines 44-50].

        At the time of the invention it would have been obvious to one having ordinary skill in the art to modify the disclosure of Randell to include the teachings of Kilpatrick to

obtain invention as specified in claim 8. The motivation to combine the teachings is

Levenshtein distances provide a smoother, more graduated distance metric. [Column 9

line 30-31]

30.   **Claims 10** and **25** are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Randell et al. [US Pub No. 2004/0064375 A1]** in view of **Rahn et al. [US Pub No.**

2004/0054685 A1], Anglum [US Pub No. 2003/0065595 A1], Templeton et al. [US

Patent No. 5,679,940], Harper[US Pub No. 2003/0212654 A1] and further in view of

Hey et al. [US Pub No. 2004/0208907 A1], Shurling et al. [US Patent No. 6,424,951

B1], and **Falcone et al. [US Pub No. 2002/0194096 A1].**

31.   As per **claim 10**, the limitation of claim 6 is covered above. Randell does not

disclose calculating a weighted customer name score. However Anglum teaches

In addition, the present invention might look at the confidence quality of each name in

the list of potential matches 38. For instance, the name on the credit card might be

"Richard M. Nixon." Two individuals with similar names might reside within the trade

zone of the store in which the purchase is made, specifically an individual known only

as "Dick Nixon" and another individual who goes by the full name "Richard M. Nixon." In

this circumstance, the confidence of the second name on the list would be higher than

the first. As a result, the second name would score higher on the match quality test [see

page 4, paragraph 0041]. At the time of the invention it would have been obvious to one

having ordinary skill in the art to modify the disclosure of Randell to include the

teachings of Anglum to obtain invention as specified in claim 6. The motivation would

be to understand the desires and trends of its customers.

Calculating a weighted customer identity score is not explicitly disclosed.

However Hey et al. teaches means for calculating identity scores [see page 10,

paragraph 151].   At the time of the invention it would have been obvious to one having

ordinary skill in the art to modify the disclosure of Randell to include the teachings of

Hey et al. to obtain invention specified in claim 10. The motivation would be obtaining

identity.

Calculating a weighted bank score is not explicitly disclosed. However Shurling

et al. teaches the Relationship scoring and Incentive Reward awarding process

advantageously implements a technique for scoring Relationships that a customer has

with a Bank [see column 17, line 39-41]. At the time of the invention it would have been

obvious to one having ordinary skill in the art to modify the disclosure of Randell to

include the teachings of Shurling et al. to obtain invention specified in claim 10. The

motivation would be for an implementation of a customer incentive program.

Determining said weighted customer score based on said weighted customer

name score, said weighted customer identity score, and said weighted bank score is not

explicitly disclosed by Randell. However Falcone et al. teaches calculating a customer

score using at least one of said customer information. At the time of the invention it

would have been obvious to one having ordinary skill in the art to modify the disclosure

of Randell to include the teachings of Falcone et al. to obtain invention specified in claim

10. The motivation to combine the teaching would be for optimizing profitability and revenue recovery for businesses.

32.   As per **claim 25**, the limitation of claim 21 is covered above. Claim 25 recites similar language as to claim 10 and is rejected on the same grounds.

33.   **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Randell et al. [US Pub No. 2004/0064375 A1]** in view of **Rahn et al. [US Pub No. 2004/0054685 A1], Anglum [US Pub No. 2003/0065595 A1], Templeton et al. [US Patent No. 5,679,940], Harper [US Pub No. 2003/0212654 A1], Hey et al. [US Pub No. 2004/0208907 A1], Shurling et al. [US Patent No. 6,424,951 B1], Falcone et al, [US Pub No. 2002/0194096 A1]**, and further in view of **Cuthbertson et al. [US Patent No. 5,724,597 A]**.

34.   As per **claim 11**, the limitation of claim 10 is covered above. Randell does not disclose calculating a weighted customer string score; calculating a weighted customer acronym score; and determining said weighted customer name score based on said weighted customer string score and said weighted customer acronym score. However Cuthbertson et al. teaches a method and system for matching textual strings representing customer names/addresses is disclosed. The textual strings are first transformed by a plurality of predefined filters. The transformed textual strings are then

compared utilizing a plurality of predefined comparators to determine if the two

transformed textual strings match. A score is determined based on the comparison of

the two transformed textual strings utilizing a scoring procedure. Based on the score

and a matching procedure, it is determined whether or not the textual strings match.

At the time of the invention it would have been obvious to one having ordinary

skill in the art to modify the disclosure of Randell to include the teachings of

Cuthbertson et al. to obtain invention as specified in claim 11. The motivation to

combine the teachings is determining if two textual strings match.

35.   As per **claim 26**, the limitation of claim 25 is covered above. Claim 26 recites

similar language as claim 11 and is rejected on the same grounds.

36.   **Claims 22 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Randell et al. [US Pub No. 2004/0064375 A1]** in view of **Anglum [US Pub No.

2003/0065595 A1]**, **Templeton et al. [US Patent No. 5,679,940]**, **Harper [US Pub No.

2003/0212654 A1]** and further in view of **Kilpatrick et al. [US Patent No. 6,742,124**

B1].

37.   Regarding **claim 22**, the limitation of claim 21 is covered above. Claim 22 recites

similar language as to claim 7 and is rejected on the same grounds.

38.   As per **claim 23**, the limitation of claim 22 is covered above. Claim 23 recites

similar language as to claim 8 and is rejected on the same grounds.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to KEVIN POE whose telephone number is (571)272-9789.

The examiner can normally be reached on Monday-Thursday 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Kramer can be reached on 571-272-6783. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/
Supervisory Patent Examiner, Art Unit 3693

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